Title: CLIENT/SERVER TWO-WAY COMMUNICATION SYSTEM FRAMEWORK UNDER HTTP PROTOCOL

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for facilitating communications between one or more application servers and one or more application clients using hyper-text transfer protocol (HTTP) comprising:

providing a communication server for one or more server-side applications in an HTTP based application server, wherein the communication server receives notification message data from one or more of the server-side applications, wherein the notification message data received by the communication server is intended for one or more clients of the applications, and wherein the notification message data includes application message data with fetching instructions for application data produced by the one or more server-side applications, and wherein the communication server stores the application message data;

providing a communication client for one or more of the clients of applications in an HTTP based application client, wherein the communication client automatically generates polling requests to the communication server;

in response to receiving a polling request from the communication client, the communication server determining whether any application message data has been stored that is intended for one or more of the clients of applications in the HTTP based application client, and if so, sending the application message data to the communication client; and

upon receiving the application message data, the communication client distributing the received application message data to the one or more clients of applications.

2. (Original) The method of claim 1, wherein the communication client parses the received application message data and distributes parsed data messages to the intended clients of the applications, which may cause the clients of applications to fetch information from corresponding servers of the application.

- 3. (Previously Presented) The method of claim 1, further comprising providing a communication servlet coupled between the communication server and the communication client.
- 4. (Previously Presented) The method of claim 1, further comprising providing a message buffer for storing the data received by the communication server from the applications.
- 5. (Original) The method of claim 4, wherein the message buffer is comprised of a hashtable.
- 6. (Original) The method of claim 5, wherein the hashtable is a two-tier hashtable.
- 7. (Original) The method of claim 1, wherein the clients are web-based clients.
- 8. (Canceled)
- 9. (Original) The method of claim 1, wherein the message data is used for direct consummation.
- 10. (Currently Amended) A client/server communication framework to facilitate communications to one or more clients using hyper-text transfer protocol (HTTP) comprising:

a first server in an application server to send a first message to a second server in the application server, and also to provide information to one or more clients using HTTP, wherein the first message includes fetching instructions for the information;

the second server in the application server, coupled to the first server, to receive the first message from the first server, to store the first message, and to send the first message to an application client at a later time in response to receiving an HTTP polling request from the application client and determining that the first message was previously stored; and

the application client to send the HTTP polling request to the second server, to receive the first message from the second server, and to distribute the first message to a first client in the application client.

11. (Previously Presented) The client/server communication framework of claim 10, wherein the first server is a server for an application, the second server is a communication server, the

Title: CLIENT/SERVER TWO-WAY COMMUNICATION SYSTEM FRAMEWORK UNDER HTTP PROTOCOL

first client is a client for the application, and the application client further comprises a communication client.

- 12. (Previously Presented) The client/server communication framework of claim 10, further comprising a memory location to store messages received by the second server.
- 13. (Original) The client/server communication framework of claim 12, wherein the messages are stored in a hashtable.
- 14. (Original) The client/server communication framework of claim 10, wherein the first message includes information identifying the first client and the application.
- 15. (Previously Presented) The client/server communication framework of claim 10, further comprising;

a third server to provide information to one or more clients using HTTP protocol, wherein the second server is coupled to the third server to receive a second message from the third server, wherein the second message is intended to be sent to a third client using HTTP protocol; and

wherein the second message is sent to the third client in response to the same or consecutive polling requests by the second client.

- 16. (Original) The client/server communication framework of claim 10, wherein the first server is an application in a web server, and wherein the one or more clients are web-based clients.
- 17. (Original) The client/server communication framework of claim 10, wherein the first message is used to instruct the first client to fetch information from the first server using HTTP protocol.
- 18. (Original) The client/server communication framework of claim 10, wherein the first message is consumed by the first client directly.
- 19. (Previously Presented) A method for facilitating communications from one or more servers to one or more clients under hyper-text transfer protocol (HTTP), the method comprising:

providing a first server to communicate with one or more clients;

providing a second server to receive a message from the first server and to store the message from the first server, wherein the message includes information intended to instruct a first client to fetch data from the first server;

providing a second client in a same application client as the first client, wherein the second client is automatically to send HTTP polling requests to the second server; and

upon receiving a polling request from the second client, the second server is to send the message from the second server to the second client; and

wherein the second client is to distribute the message to the first client.

- 20. (Previously Presented) The method of claim 19, wherein storing the message from the first server comprises storing the message into a buffer.
- 21. (Original) The method of claim 20, wherein the buffer is provided by a hashtable.
- 22. (Original) The method of claim 19, wherein the first server is an application under a web server, and wherein the one or more clients are web clients.
- 23. (Original) The method of claim 19, wherein the communications between the servers and clients uses HTTP protocol.
- 24. (Original) The method of claim 19, wherein the first client fetches data from the first server in response to the message.
- 25. (Original) The method of claim 19, wherein the first client consumes the message directly.
- 26. (Previously Presented) The method of claim 19, further comprising: providing a third server to communicate with one or more clients; wherein the second server also is to receive a second message from the third server, wherein the second message includes information intended for a third client;

upon receiving a polling request from the second client, sending the information intended for the third client to the second client; and

distributing the message from the second client to the third client.

27. (New) A computer-implemented method comprising:

determining, by a server-side application, that application data intended for a client-side application is available;

sending, by the server-side application, a communication initiation message to a communication server, wherein the communication initiation message includes a client identifier associated with the client-side application and includes fetching instructions for the application data;

receiving the communication initiation message by the communication server;

storing, by the communication server, the communication initiation message in a message buffer;

sending, by a communication client associated with the client-side application, a polling request to the communication server, wherein the polling request includes the client identifier;

receiving the polling request by the communication server;

in response to receiving the polling request, the communication server checking the message buffer for one or more communication initiation messages associated with the client identifier;

when the message buffer includes a communication initiation message associated with the client identifier, the communication server retrieving the communication initiation message from the message buffer and sending the communication initiation message to the communication client;

receiving the communication initiation message by the communication client; distributing, by the communication client, the fetching instructions within the communication initiation message to the client-side application;

receiving the fetching instructions by the client-side application;

based on the fetching instructions, the client-side application sending an application data request to the server-side application;

receiving the application data request by the server-side application;

sending, by the server-side application, the application data to the client-side application; and

receiving the application data by the client-side application.

28. (New) A computer-implemented method performed by a communication server, the method comprising:

receiving a communication initiation message from a server-side application, wherein the communication initiation message includes a client identifier associated with a client-side application and includes fetching instructions for application data intended by the server-side application for the client-side application;

storing the communication initiation message;

receiving a polling request from a communication client associated with the client-side application, wherein the polling request includes the client identifier;

in response to receiving the polling request, retrieving the communication initiation message; and

sending the communication initiation message to the communication client.

- 29. (New) The computer-implemented method of claim 28, wherein storing comprises: storing the communication initiation message into a message buffer.
- 30. (New) The computer-implemented method of claim 29, wherein retrieving comprises: when multiple communication initiation messages have been stored in the message buffer, retrieving the multiple communication initiation messages from the message buffer.
- 31. (New) The computer-implemented method of claim 30, wherein sending comprises: sending the multiple communication initiation messages to the communication client.
- 32. (New) A computer-implemented method performed by a server-side application, the method comprising:

determining that application data intended for a client-side application is available;

Title: CLIENT/SERVER TWO-WAY COMMUNICATION SYSTEM FRAMEWORK UNDER HTTP PROTOCOL

sending a communication initiation message to a communication server, wherein the communication initiation message includes a client identifier associated with the client-side application and includes fetching instructions for the application data, wherein the fetching instructions are to be sent by the communication server to the client-side application in response to a polling request from a communication client associated with the client-side application;

in response to sending the communication initiation message, receiving an application data request from the client-side application in accordance with the fetching instructions; and sending the application data to the client-side application.

- 33. (New) The computer-implemented method of claim 32, further comprising: constructing the communication initiation message to include the client identifier, an identifier of the client-side application, and a message body.
- 34. (New) A computer-implemented method comprising:

sending, by a communication client, a polling request to a communication server, wherein the communication client is associated with a client-side application and the communication server is a server associated with a server-side application, and wherein the polling request includes a client identifier for the client-side application;

in response to sending the polling request, the communication client receiving a communication initiation message from the communication server, wherein the communication initiation message includes fetching instructions for application data which was determined, by the server-side application, to be intended for the client-side application;

parsing the communication initiation message by the communication client; and distributing, by the communication client, the fetching instructions within the communication initiation message to the client-side application.

35. (New) The computer-implemented method of claim 34, wherein sending the polling request comprises:

sending the polling request upon system startup.

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Title: CLIENT/SERVER TWO-WAY COMMUNICATION SYSTEM FRAMEWORK UNDER HTTP PROTOCOL

36. (New) The computer-implemented method of claim 34, further comprising: sending an additional polling request after distributing the fetching instructions to the client-side application.

37. (New) A computer-implemented method performed by a client-side application, the method comprising:

receiving fetching instructions from a communication client associated with the clientside application, wherein the fetching instructions originate from a server-side application associated with a communication server, and the communication client received the fetching instructions, within a communication initiation message, from the communication server;

based on the fetching instructions, the client-side application sending an application data request to the server-side application;

receiving the application data from the server-side application in response to sending the application data request.